

REMARKS

The Examiner has rejected claims 1, 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Deering et al ("Deering") in view of Berchin and Wells et al ("Wells") and claim 2 further in view of Cole.

Deering discloses an improved graphics system for a computer system that includes pixel super-sampling and dithering in that context. Multiple samples are generated for each pixel location on a display, and the samples for each pixel are dithered by a corresponding set of dither values and stored, and subsequently the truncated values are averaged with a greater precision so that the truncated average closely approximates the average of the original samples to produce a pixel value for display. As indicated with the prior references cited by the Examiner, this is not a spatial dithering technique but a pixel intensity/color value dithering technique. Therefore Deering does not sum a dithering signal with a dimensional component value for each data point. Applicants' claimed invention dithers the pixel location, rather than intensity value, to eliminate "jaggies" whereas graphics systems "blur" pixel intensities to eliminate such artifacts in rendering.

Berchin addresses aliasing in waveforms by determining the spectral content of a waveform and adjusting the sampling rate to avoid aliasing as part of an automatic setup of acquisition parameters for an oscilloscope. This is a completely different concept for eliminating aliasing than is suggested by Deering. There is no way that these two references can be combined. Further the Examiner cites column 1, lines 45-46 as teaching using the sampling image to provide an accurate data on displaying waveform images, but that citation recites "[T]his manual process may be slow, inaccurate and difficult to perform properly."

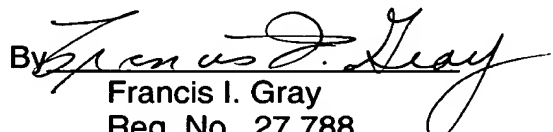
Wells, like Deering, deals with pixel intensity dithering so that combining Wells with Deering still does not sum a dithering signal with a dimensional component value for each data point. Again the Examiner refers to column 3, lines 50-56 which talks about "hot spots" caused when lines intersect or overlap due to the addition of intensity values where the anti-aliased lines have a greater intensity at the center than the edges (in order to blend into the background color). Applicants do not see how this correlates to "making sure that the individual pixels which make up the vector are dithered with best elements."

Thus claims 1-4 are deemed to be allowable as being nonobvious to one of ordinary skill in the art over Deering in view of Berchin and Wells and further in view of Cole.

In view of the foregoing remarks allowance of claims 1-4 is urged, and such action and the issuance of this application are requested.

Respectfully submitted,

ROBERT W. PARISH et al

By 
Francis I. Gray
Reg. No. 27,788
Patent Agent for Applicant

TEKTRONIX, INC.
P.O. Box 500 (50-LAW)
Beaverton, OR 97077
(503) 627-7261

7240 US